CLAIMS

What is claimed is:

1. A method of rinsing an electronic substrate, comprising:

recognizing that fluctuations in the amount of residues on an electronic substrate are eliminated by adding a low species buffer to a rinsing fluid;

preparing a low species buffered rinsing fluid by (a) providing water from a water source; (b) deionizing the water to produce deionized water; (c) adding a buffer to the deionized water at a concentration effective to eliminate fluctuations in the amount of residues on the electronic substrate; and

rinsing the electronic substrate with the low species buffered rinsing fluid.

2. The method of claim 1 wherein the residue comprises an etchant.

3. The method of claim 1 wherein the residue comprises copper.

4. The method of claim 1 wherein the residue comprises particulate material.

5. The method of claim 1 wherein the electronic substrate comprises an electronic interconnect structure.

6. The method of claim 1 wherein the electronic substrate comprises an integrated circuit.

7. The method of claim 1 wherein the electronic substrate comprises a printed circuit board.

8. The method of claim 1 wherein the low species buffer comprises an amphoteric buffer.

9. The method of claim 1 wherein the low species buffer comprises an acid and a salt of the acid.

10. The method of claim 1 wherein the low species buffer comprises at least one of sodium bicarbonate or potassium bicarbonate.

11. The method of claim 1 wherein the pH of the low species buffered fluid is between 7-14.

12. The method of claim 1 wherein the pH of the low species buffered fluid is between 7.5-9.0.

13. The method of claim 1 wherein the concentration of the buffer is between 100 ppm and 1000 ppm.

14. The method of claim 1 wherein the concentration of the buffer is between 400 ppm and 500 ppm.

15. The method of claim 1 wherein the rinsing comprises spray rinsing.

16. The method of claim 1 wherein the rinsing comprises immersion rinsing.

17. An intermediate comprising:

a printed circuit board having residues from an etching step; and

a solution of deionized water and buffer contacting the printed circuit board in a bath.

18. The intermediate of claim 17 wherein the buffer comprises sodium bicarbonate.

19. The intermediate of claim 18 wherein the buffer has a concentration of between 400 ppm and 500 ppm.

20. The intermediate of claim 17 wherein the solution has a pH of between about 7.0 and 9.0.